



# West Nile Virus Fact Sheet



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Fact Sheet

## West Nile Virus

West Nile Virus (WNV) is a mosquito-borne virus, which can cause a wide range of clinical illness from mild "flu-like" symptoms to encephalitis (inflammation of the brain). The virus may be fatal to both humans and horses. While horses are susceptible to WNV, many horses infected with the disease will not develop any illness and will recover uneventfully. Currently, there is no specific treatment for WNV.

## History

WNV was first isolated from a woman in the West Nile District of Uganda in 1937. In the 1950's an outbreak was recorded in Egypt, and another outbreak in Israel in 1957. As the disease gained more recognition, new cases were reported in France and Egypt in the 1960's, and in South Africa in 1974. Romania reported an outbreak in 1996, and Russia recorded a few cases in 1999.

The virus was first isolated in the United States from a dead crow on September 14, 1999, in New York city. The virus was later identified as WNV and was confirmed as the cause of a human encephalitis case that occurred in New York City in August in 1999. Since then, WNV has been detected in humans, animals, and mosquitoes from coast to coast.

## Virus Life Cycle

Mosquitoes acquire WNV from infected birds and pass it on to other birds, animals, and people. Mosquitoes have not demonstrated the ability to transmit virus from an infected horse. Migratory birds are an important reservoir for WNV and have served as the major vector for spread of the virus into new areas.

## Vaccination

There are currently two approved WNV vaccine products available for horses. An initial series of at least two vaccinations, followed by periodic 'booster' injections is required with each. Horses are not fully protected until they have had two initial injections and are up to date with booster vaccinations. The number and timing of booster vaccinations may vary depending on seasonal climate and geography.

Horse owners are urged to consult their veterinary practitioner to ensure the vaccination status of all their horses is current.

## Clinical Signs

**Consult your veterinarian if your horse exhibits any of the following signs:**

- Incoordination, especially in rear limbs, causing stumbling and falling
- Drooping lips and lip smacking
- Generalized weakness
- Muscle twitching
- Head drooping, lethargy, and unresponsiveness
- Grinding teeth
- Hypersensitivity to touch or sound
- Fever
- Recumbency (inability to rise)
- Seizures and coma

## Mosquito Control

You can decrease the chances of your horse being exposed to WNV by minimizing their exposure to mosquitoes, especially during the peak mosquito-feeding period, which is dusk to dawn. Applying horse mosquito repellant also effectively reduces the number of mosquito bites.

Additionally, mosquito-breeding sites should be eliminated. Methods for eliminating mosquito-breeding sites include:

- Drain unnecessary standing water (wheelbarrows, tires, etc.)
- Clean water containers (bird baths, plant saucers, etc.) at least weekly
- Schedule pasture irrigation to minimize standing water
- Keep swimming pools optimally chlorinated and drain water from covers
- Stock water tanks with fish that consume mosquito larvae (local mosquito control may provide assistance), or use mosquito "dunks" available at hardware stores.

## CDFA Animal Health Branch Offices

Sacramento (HQ):	(916) 654-1447
Redding District:	(530) 225-2140
Modesto District:	(209) 491-9350
Tulare District:	(559) 685-3500
Ontario District:	(909) 947-4462

## USDA/APHIS/VS Area Office

(916) 854-3900 Or (877) 741-3690



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